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EXAMINER

STEELMAN, MARY J

ART UNIT	PAPER NUMBER
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2122

DATE MAILED: 06/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/472,290

Applicant(s)

PATEL ET AL.

Examiner

Mary J. Steelman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03/11/03 & 04/15/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to the RCE filed 04/15/2003.
2. As per Applicant's request, claims 14 & 17 have been amended. Claims 1-20 are pending.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-4, 11-13, 19 & 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,178,225 to Zur et al, in view of U. S. Patent 6,094,531 to Allison et al.

Zur teaches a system for management of multiple imaging services within a networked system (Zur, Fig. 1) which could be part of a (Zur, col. 4, line 38) Picture Archiving and Communication System (PACS). The imaging facility has (Zur, col. 4, lines 53-54) "internet connectivity...via a network connection." where signals are communicated between the service center (server) and the metering systems, SYS1-N, (plurality of clients). Zur does not teach a method to simultaneously install software to a plurality of PACS workstations. However, Allison does teach a method for automatic simultaneous installation on a plurality of machines (terminal / workstations / clients). (Allison, fig. 1 and col. 4, lines 43-48) "The installer (1) of the present invention is capable of configuring several machines (3) and installing operating systems (software) on them...simultaneously...over network...Internet." The server is directed to install: (Allison, col. 11, line 45), "When the installer (1) receives a request from a dispatcher

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(17) to install..." and the (Allison, col. 11, lines 61-65) "...installer (1) calls the installation script...The script then causes the OS to be installed on the selected test machine..." Besides installing operating systems, other software may be installed (updates), (col. 12, line 32) "...the launcher (18) installs the test software..."

It would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the networked Picture Archiving Communication System units as taught by Zur, by permitting the networked system to allow for simultaneous installations of software to the PACS workstations, as taught by Allison, because PACS is a cost effective solution to image processing, PACS is already networked, and (Allison, col. 1, lines 14-41) disclosed methods that make it suitable for simultaneous generic installation on a plurality of networked computers (workstations/ terminals) while minimizing human intervention and the likelihood of errors.

**Regarding claim 1, Zur, in view of Allison teaches:**

- establishing a network connection with a web-based server; (Zur, fig. 1 and col. 2, line 51.)
- providing software for installation to a picture archiving and communication system workstation; (Allison, col. 5, lines 42-43, "...installer is provided with the name of the ...revision (software) to be installed.")
- directing the web-based server to simultaneously install the software to a plurality of picture archiving and communication system workstations in communication with the web-based server; simultaneously installing software to the plurality of picture archiving and communication system workstations. (Allison, col. 4, lines 43-46.)

**Regarding claim 2, Zur, in view of Allison teaches:**

- instructing the server to install at least one software update to the plurality of workstations.

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(Allison, col. 12, lines 32-34, "...the launcher (18) installs the test software, configures the environment...and starts the test software.")

**Regarding claim 3, Zur, in view of Allison teaches:**

-logging on to a web server and authenticating a user. (Allison, col. 8, lines 8-9, "components...and the users...communicate via the Internet." Also col. 11, lines 33-36, "...each installer contains a list of the dispatchers with which it can communicate. Each installer will also contain a list of the test machines which it is allowed to configure and/or install.")

**Regarding claim 4, Zur, in view of Allison teaches:**

-sending an indication message to the remote terminal to indicate whether the software installation was successful. (Allison, col. 4, lines 12 – 15, "When the launcher program is installed, the launcher program will notify all of the dispatcher machines with which it is allowed to communicate that the test machine is on the system.")

**Regarding claim 11, Zur, in view of Allison teaches:**

-a remote first terminal in communication with a web-based server via an Internet connection, said remote first terminal comprising a remote signal; (Zur, fig. 1 & col. Col. 4, lines 25-26, "...image is captured and transferred...(signal is sent by remote terminal)")

-a plurality of picture archiving and communication system workstations connected to said web-based server; (Zur, fig. 1, #SYS-1-N, & col. 4, lines 37-38, "...may be part of a Picture Archiving and Communication System...")

-said web-based server comprising an installer for simultaneously installing software to said plurality of picture archiving and communication system workstations responsive to said remote

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signal. (Zur teaches a networked PACS apparatus, but fails to disclose simultaneous installation of software. Allison (Allison, col. 4, lines 43-46) teaches simultaneous installation.)

**Regarding claim 12, Zur, in view of Allison teaches:**

-first workstation comprises the remote signal for instructing said web-based server to install software to said plurality of second workstations. (Allison, col. 4, lines 43-46, "...capable of...installing...simultaneously." And figs. 1 & 2, and col. 5, lines 25-26, "...when a request to install (signal)...is received by the installer (web-based server) ...")

**Regarding claim 13, Zur, in view of Allison teaches:**

-web-based server comprises an installer for simultaneously installing software updates for pre-existing software to said plurality of picture archiving and communication system workstations.

-an installer for simultaneously installing software updates for pre-existing software to said plurality of PACS workstations. (Zur teaches networked PACS apparatus. Zur fails to teach simultaneous installation. Allison teaches simultaneous installation and installs operating systems (software updates) according to test requirements. (Allison, col. 11, lines 45 – 67, "...the installer receives a request from a dispatcher to configure or install an OS on a test machine, the installer will send commands over the Internet...the command is received by the test machine...installer and the test machine will communicate back and forth...The script then causes the OS to be installed on the selected test machine...")

**Regarding claim 19, Zur, in view of Allison teaches:**

-connecting to a web-based server on a network; (Zur, col. 2, lines 50-51.)

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-instructing the web-based server to update software on a plurality of picture archiving and communication system workstations in communication with the web-based server; (Allison, Abstract, lines 18-19, "...installer receives requests to install...")

-simultaneously updating software on the plurality of picture archiving and communication system workstations. (Allison, col. 4, lines 43-46, "...installer...is capable of ...installing...simultaneously.")

**Regarding claim 20, Zur, in view of Allison teaches:**

-logging on to the web-based server and authenticating a user. (Zur, col. 6, lines 45-46, "...may necessitate...password or code..")

5. **Claims 5-8, 14-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 6,178,225 to Zur et al, in view of U. S. Patent 6,492,812 to Debbins et al.

Zur teaches a system for monitoring imaging services within a networked system (Zur, fig. 1) which could be part of a (Zur, col. 4, line 38) Picture Archiving and Communication System (PACS). The imaging facility has (Zur, col. 4, lines 53-54) "internet connectivity...via a network connection." Zur does not teach extracting a log file for analysis at the remote terminal or remotely correcting errors. However, Debbins teaches a networked medical diagnostic imaging system that includes a service system (col. 14, lines 46-63) providing remote diagnostics and servicing. Col. 14, lines 61-63, "...calibration, software upgrades and other service operations are available via the network." Also, col. 10, lines 59-65, "...processing system may be linked to a system of databases (logs)....may include ...information on operating parameters, service histories..."

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the networked Picture Archiving Communication System as taught by Zur, to include remote error detection / correction abilities and a log file, as taught by Debbins, because a networked system of critical medical information should have the ability to efficiently and in a timely manner be monitored and maintained over the Internet (Col. 2, lines 12-18).

**Regarding claim 5, Zur in view of Debbins teaches:**

- establishing a network connection with a web-based server; (Zur, col. 2, lines 50-51, “...communicate with the service center via an Internet communication technology...”)
- directing the web-based server to retrieve data from at least one file from at least one of a plurality of picture archiving and communication system workstations in communication with the web-based server, the data including a log; (Zur, fig. 3 and col. 1, lines 59-61, “...the method for management of X-ray imaging...includes an archiving step wherein a generated...image is retrievably stored...” and Debbins, fig. 4 and col. 14, lines 46-63.)
- retrieving the data from the at least one file; (Zur, col. 5, lines 61-62, “...images are forwarded to an archive for storage and subsequent retrieval... and Debbins, col. 10, lines 59-65.)
- transmitting the data to a remote terminal; (Zur, col. 1, lines 63-64, “...archiving step includes transferring the generated digital image to a remote archive.”)
- analyzing the data for an error indicator. (Debbins, col. 10, lines 45-54.)

**Regarding claim 6, Zur in view of Debbins teaches:**

- extracting the at least one file for analysis at the remote terminal. (Zur, col. 4, lines 34-37, “After the technologist has viewed the image (file), the image may be exported from operating



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and viewing station and stored at a local archive where it is retrieved (extracting) for diagnostics.”)

**Regarding claim 7, Zur in view of Debbins teaches:**

-extracting at least one log file. (Debbins, col. 10, lines 45-65.)

**Regarding claim 8, Zur in view of Debbins teaches:**

-extracting at least one image file. (Zur, col. 4, lines 34-37, “After the technologist has viewed the image (image file), the image may be exported from operating and viewing station and stored at a local archive where it is retrieved (extracting) for diagnostics.”)

**-Regarding claim 14, Zur, in view of Debbins teaches:**

-a remote first terminal in communication with a web-based server via a network connection, said remote first terminal comprising a remote signal; (Zur, fig. 1. & 3, col. 2, lines 47-55; “...metering system (first terminal, SYS-1) is operative to communicate with the service center (web-based server) via a communications network...by electronic polling (remote signal.)

-a plurality of picture archiving and communication system workstations connected to said web-based server; (Zur, figs. 1 & 3, SYS1-N, col. 3, line 27, “...at least one digital X-ray imaging facility (10).” Also col. 4, lines 53-54, “...imaging facility has internet connectivity...via a network connection.”)

-said web-based server comprising a data retriever for retrieving data from at least one of said plurality of picture archiving and communication system workstations responsive to said remote signal, said web-based server allowing remote correction of an error at at least one of said plurality of picture archiving and communication system workstations. (Zur, col. 5, lines 61-62, “...images are forwarded to an archive for storage and subsequent retrieval...” and col. 6, lines

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43-45, "service center (server) may electronically poll individual...imaging facilities to...update...statistics." Also, Debbins, col. 14, lines 46-63.)

**Regarding claim 15, Zur in view of Debbins teaches:**

-said web-based server comprises said data retriever for retrieving log files from at least one of said plurality of picture archiving and communication system workstations responsive to said remote signal. (Debbins, fig. 4 and col. 10, lines 45-65.)

**Regarding claim 16, Zur, in view of Debbins teaches:**

-data retriever for retrieving image files from at least one of said plurality of PACS workstations responsive to said remote signal. (Zur, col. 4, lines 34-37, "After the technologist has viewed the image (image file), the image may be exported from operating and viewing station and stored at a local archive where it is retrieved (extracting) for diagnostics.")

**Regarding claim 17, Zur, in view of Debbins teaches:**

-connecting to a web-based server on a network; (Zur, col. 2, lines 50-51, "...communicate with the service center via an Internet communication technology...")

-instructing the web-based server to extract log data from at least one of a plurality of picture archiving and communication system workstations in communication with the web-based server; (Debbins, col. 10, lines 45-64.)

-transmitting the log data to a remote terminal for error analysis. (Debbins, col. 14, lines 60-63.)

-remotely correcting an error. (Debbins, col. 14, lines 46-63.)

**Regarding claim 18, Zur in view of <sup>Debbins</sup>Diekey teaches:**

-extracting at least one image file from at least one of the plurality of picture archiving and communication system workstations. (Zur, col. 4, lines 34-37, "After the technologist has

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viewed the image (image file), the image may be exported from operating and viewing station and stored at a local archive where it is retrieved (extracting) for diagnostics.”)

6. **Claims 9 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent 6,178,225 to Zur et al, in view of U.S. Patent 6,492,812 to Debbins et al., and further in view of U. S. Patent 6,192,518 to Neal.

Zur teaches a system for monitoring imaging services within a networked system (Zur, Fig. 1) which could be part of a (Zur, col. 4, line 38) Picture Archiving and Communication System (PACS). The imaging facility has (Zur, col. 4, lines 53-54) “internet connectivity...via a network connection.” Zur does not teach log files, a limitation of the parent claim. However, Debbins taught log files (col. 10, lines 59-65) and error analysis / correction (Col. 14, lines 46-63). The combination fails to disclose directing a search of files for a predetermined message or for an error indicator. However, Neal teaches a method of installing software over a network where files are searched for a text message (Neal, col. 5, lines 9-13.) and where there is a search for an error indicator in the plurality of workstations (Neal, col. 7, lines 28-38).

Therefore, it would have been obvious, to one of ordinary skill in the art, at the time of the invention, to modify the networked Picture Archiving Communication System as taught by Zur, to include remote error detection / correction and log files as taught by Debbins, and further modify by including Neal’s invention to include a step to direct a search of files for a predetermined message or search files for an error indicator, because controlling software installation over a network (Neal, col. 1, lines 20-37), using search strings, or looking for error indicators reduces downtime for remote units and increases productivity while allowing for simultaneous software updates.

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**Regarding claim 9, as disclosed by Zur, in view of Debbins, and further in view of Neal:**

-directing a search of files for a predetermined message in at least one of the plurality of workstations. (Neal, col. 5, lines 11-13, "...the invention searches for messages that contain the "MBA 2.0" tag in the subject text...")

**Regarding claim 10, as disclosed by Zur, in view of Debbins, and further in view of Neal:**

-directing a search of files for an error indicator in at least one of the plurality of workstations. (Neal, col. 6, lines 12-15, "If file images are required to complete the software application installation, the agent sends an e-mail message back to the source computer...")

***Response to Arguments***

7. Applicant's argument's filed on 22 November 2002 have been fully considered but they are not persuasive.

8. Applicant has argued, in substance, the following:

(A) Regarding claims 5, 14, 16, and 17: "Zur does not teach detecting / analyzing data for an error indicator, or remote correction of errors at the one or more workstations." Examiner agrees that Zur does mention that periodic on-site service and maintenance is done, which implies that error indicators of some sort are available. Applicant's arguments with respect to claims 5, 14, 16 and 17 have been considered but are moot in view of the new ground(s) of rejection. The Debbins reference has been added in response to the newly added limitation of "remote correction of errors."

(B) Regarding claims 1, 11, and 19: "Zur does not teach simultaneous installing / updating software on a plurality of picture archiving and communication system workstations." Examiner agrees that Zur does not teach simultaneous installation. The Zur reference disclosed a system

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for management of PACs systems (Col. 1, lines 44-45). The Allison reference discloses a simultaneous installation suitable for a networked system. The combination of Zur and Allison address a simultaneous installation of software (PACs) over a network (Col. 4, lines 43-48).

(C) Per claims 5-8, 15, and 17-18, and 19-20: Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection. The cited art has been changed to Zur, in view of Debbins, which discloses logs (col. 10, 59-65) and remote error correcting (col. 14, lines 46-63) for an imaging system.

(D) Per claims 9 and 10: "Of the combination Zur, in view of Dickey (changed to Debbins), and further in view of Neal, Neal does not disclose medical applications or picture archiving and communication systems. Neal does not correct errors. Neal has no log file." Examiner agrees. The Neal reference is used because of the disclosure of receiving update information via email (Col. 3, lines 42-50) when distributing software over a network.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Steelman, whose telephone number is (703) 305-4564. The examiner can normally be reached Monday through Thursday, from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703) 308-4789.

The fax phone numbers are (703) 746-7240 for regular communications and (703) 746-7239 for After Final communications. Any inquiry of a general nature or relating to the status of


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this application or proceeding should be directed to the receptionist whose telephone number is  
(703) 305-3900.

Mary Steelman



06/13/2003



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